



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/600,990

06/13/2003

Emily F. Hamilton

CU-3263 RJS

7125

26530

7590

07/31/2007

LADAS & PARRY LLP

224 SOUTH MICHIGAN AVENUE

SUITE 1600

CHICAGO, IL 60604

EXAMINER

APANIUS, MICHAEL

ART UNIT

PAPER NUMBER

3736

MAIL DATE

DELIVERY MODE

07/31/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/600,990

Applicant(s)

HAMILTON, EMILY F.

Examiner

Michael Apanius

Art Unit

3736

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 01 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 49-65 and 77-94 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 49-65 and 77-94 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/1/2007 has been entered. The cancellation of claims 66-76 and the addition of new claims 86-94 are acknowledged.

### ***Claim Objections***

2. Claims 86-90 are objected to because of the following informality: at claim 86, line 5, it appears that "a conducting" should be --conducting--. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 62-65 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter

Art Unit: 3736

which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Although the original disclosure appears to provide support for receiving and processing data from a user interface or from a sensor unit (page 16, lines 18-20), the original disclosure does not appear to support receiving a second signal, in addition to a first signal, and processing both signals with two databases to identify and convey two particular actions as set forth in claims 62-65. Therefore, previously added claims 62-65 appear to lack proper support from the original disclosure.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 49-53, 56, 62-65, 77, 78, 81, 85-88, 91 and 92 are rejected under 35 U.S.C. 102(b) as being anticipated by Keith et al. (US 5,609,156). Keith discloses a process for monitoring an obstetrics patient, said process comprising: providing a user interface control (12a, 12b) operable by a user, the user interface control allowing the user to input information (i.e. column 8, lines 34-37) on a status of a health characteristic (i.e. the overall condition and prospect for successful natural delivery) of the obstetrics patient, the status of the health characteristic being inherently associated

with a probability of a certain outcome (i.e. operative delivery/cesarean section, survival); accessing a database (10) that maps (column 8, lines 16-63) different possible statuses of the health characteristic to respective actions for causing a change in the probability of the certain outcome; identifying a particular action (i.e. figure 13 and/or column 8, lines 28-29) for causing the probability of the certain outcome to change; conveying data indicative of the particular action to the user via a display (16). In regards to claims 50 and 56, the status of the health characteristic can be a measurement of cervical dilation (column 8, lines 53-56). In regards to claims 51 and 52, the health characteristic is modified by the particular action to cause the change in the probability of the outcome. In regards to claim 53, the patient includes a pregnant woman and a fetus. In regards to claims 62-65, the process also similarly maps a measurement taken from a sensor unit and sensor interface (1) to a particular action for changing the same outcome. In regards to claim 86, the health characteristic is inherently associated with a probability of conducting a caesarean delivery and the identified action will somehow affect the probability of caesarean delivery. In regards to claim 91, the rules can be considered particular entries in the database that are identified and used. Since an action is identified by a rule (column 8, lines 28-29), the action is identified in the corresponding entry as claimed. In regards to the remaining limitations of claims 77, 78, 81, 85-88, 91 and 92, the limitations are similarly met as noted above.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 54, 55, 79 and 80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keith et al. (US 5,609,156) in view of Hildebrand et al. (US 6,470,320). Keith does not expressly disclose deriving the probability of the certain outcome. Hildebrand teaches deriving the probability of the certain outcome from information inputs and identifying a particular action based on information inputs and the derived probability for the purpose of determining if immediate action is required to improve the overall delivery of health care (column 9, lines 15-37). Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to have modified the process of Keith to base the determination of a particular action on both information inputs and a derived probability of an outcome as taught by Hildebrand in order to determine if immediate action is required to improve the overall delivery of health care.

9. Claims 57, 58, 82, 83, 89, 90, 93 and 94 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keith et al. (US 5,609,156) in view of Atad (US 4,976,692). Keith does not expressly disclose measurement of the ripeness of the cervix or an associated treatment. Atad teaches measurement of cervical ripeness to determine if

Art Unit: 3736

artificial ripening treatment should be carried out (column 3, lines 32-40). It would have been obvious to one having ordinary skill in the art to use a measurement of cervical ripeness as taught by Atad as an additional measurement in the method and apparatus of Keith in order determine if artificial ripening should be carried out and therefore, improve fetal monitoring.

10. Claims 59 and 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keith et al. (US 5,609,156) in view of Enhorning (US 5,636,870). Keith does not expressly disclose using a patient's blood type or disease status. Enhorning teaches that blood type and disease status are included in a pregnancy medical chart (column 5, lines 39-45) that allows physicians to make better use of patient data to diagnose and treat a patient (abstract). One having ordinary skill in the art would recognize that because blood type and disease status are included on the pregnancy medical chart that they are useful measurements in monitoring, diagnosing, and treating an obstetrics patient. Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to have used measurements of patient blood type and disease status as taught by Enhorning as additional measurements in the method and apparatus of Keith in order to provide additional patient information so that diagnoses and treatment recommendations are improved.

11. Claims 61 and 84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keith et al. (US 5,609,156) in view of Harrison et al. (US 5,431,171). Keith does

not expressly disclose using a patient's body temperature. Harrison teaches that fetal temperature is critical in detecting fetal distress syndrome so that treatment may be administered as soon as possible (column 5, lines 40-49). Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to use fetal temperature as taught by Harrison in the method and apparatus of Keith in order to detect fetal distress syndrome as soon as possible so that treatment may be timely administered.

### ***Response to Arguments***

12. Applicant's arguments filed 5/1/2007 have been fully considered but they are not persuasive.

13. Applicant argues that claims 62-65 are supported in the original disclosure because different databases and tables were originally disclosed, which would have conveyed that the inventors had possession of the concept of being able to access multiple databases based on different health characteristics. In response, although various tables/databases were originally disclosed, it is respectfully submitted that the Applicant still has not pointed out where the original disclosure supports identifying a particular action in more than one database in a single process as set forth in claims 62-65. The original disclosure must support identifying a particular action in a first database by mapping a measurement received from a user interface control and a particular action in a second database by mapping a measurement received from a



sensor unit. Furthermore, the additional limitation in claim 63 also does not appear to be properly supported by the original disclosure.

14. Regarding the rejection of claim 49, Applicant argues that not only does Keith not describe that a database is accessed in response to the user inputting information, Keith also does not describe that user entered information is mapped to an action for causing a change in the probability of the certain outcome. In response, the database includes many production rules that map health characteristics to an action (column 8, lines 23-29). Keith expressly discloses a midwife inputting information on a status of a health condition (column 8, lines 33-37). The inference engine forward chains using the information obtained from the midwife. Forward chaining using the entered information reads on accessing a database in response to the user inputting information.

Therefore, the disclosure of Keith is considered sufficient to meet the limitations of claim 49. In particular, Keith discloses accessing a rule in the database in response to the user inputting information on the status of the health characteristic via the user interface control. Since the user entered information is used by the rules of the database and since the rules determine an appropriate form of action, the database maps the status of the health characteristic to a particular action.

15. Applicant alleges that the lengthy and complex process of Keith is clearly in contrast to, and precludes, the straightforward steps of the claimed invention. In response, it is respectfully submitted that regardless of whether or not the mapping of Keith is more complex than the current invention, the disclosure of Keith is sufficient to read on the invention as presently claimed.

Art Unit: 3736

16. Regarding the rejection of claim 77, Applicant argues that nowhere does Keith specifically describe receiving from a user a measurement of a modifiable health characteristic, and processing that characteristic to determine an action for causing the particular characteristic to be modified. In response, Keith states that the process provides an indication of a level of concern for fetal well-being and can also be used to suggest an appropriate form of action (column 8, lines 25-29). It is clear from the context of Keith's disclosure, that the action would somehow affect fetal well-being (also see actions shown in figure 13). Progress of labor is one measurement of a particular health characteristic that is entered by the user. It is clear that an action that affects fetal well-being would also affect the progress of labor in some manner (i.e. directly/indirectly, greatly/slightly). Therefore, the rejection based on Keith is considered proper to meet a broadest, reasonable interpretation of the claim language.

17. Applicant further argues that Keith does not disclose the limitations of claims 81-83. In response, it is noted that Keith is not relied upon to reject claims 82 and 83. In regards to claim 81, Keith discusses using cervical dilation, a measurement of the uterine cervix, as other information that is important in deciding a course of action (column 8, lines 53-56).

18. Applicant submits that the new claims include limitations which are neither anticipated, nor rendered obvious by the references cited by the Examiner. It is respectfully submitted that the limitations of these claims are met as noted above in the rejection.


**Conclusion**

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Apanius whose telephone number is (571) 272-5537. The examiner can normally be reached on Mon-Fri 8am-4:30pm.

20. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Max Hindenburg can be reached on (571) 272-4726. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

21. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MA

  
MAX HINDENBURG  
PATENT EXAMINER  
EBC CENTER 3703